

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2003/001471

A. CLASSIFICATION OF SUBJECT MATTER		
Int. Cl. ⁷ : A61M 16/06, A62B 18/02		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) A61M, A62B		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI +keywords: mask, strap, tension; mask, flexible, cushion; mask, cushion, flange		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,623,923 A (BERTHEAU et al) 29 April 1997 Abstract, column 2 lines 18 to 25	1-12
X	US 6,470,887 B1 (MARTINEZ) 29 October 2002 Abstract, column 1 lines 33 to 44	1-12
X	US 5,355,878 A (GRIFFITHS et al) 18 October 1994 Abstract	1-12
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>		
Date of the actual completion of the international search 9 February 2004		Date of mailing of the international search report 12 FEB 2004
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929		Authorized officer SUE THOMAS Telephone No : (02) 6283 2454

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,488,948 A (DUBRUILLE et al) 6 February 1996 Abstract	1-12
X	WO 1999/043375 A1 (MAP MEDIZINTECHNIK FÜR ARTZ UND PATIENT GMBH & CO) 2 September 1999 Abstract, claim 1	13
X	WO 1998/004310 (RESMED LIMITED) 5 February 1998 Abstract, page 3 lines 8 to 24	13
X	WO 2001/095965 A1 (FISHER & PAYKEL LIMITED) 20 December 2001 Figure 19	30-34
X, P	EP 1 258 266 A1 (TIARA MEDICAL SYSTEMS) 20 November 2002 Abstract	34
X	US 2001/020474 A1 (HECKER et al) 13 September 2001 Abstract	34

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Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos :
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

First invention Claims 1-9, 11-12
Second invention Claims 10, 14-18
Third invention Claim 13
Fourth invention Claims 19-28
Fifth invention Claims 30-34
See extra sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.
☒ No protest accompanied the payment of additional search fees.

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Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: II

The international application does not comply with the requirements of unity because it does not relate to one invention or group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are five different inventions as follows:

1. Claims 1-9, 11-12 are directed to a mask with straps comprising active tensioning elements. It is considered that active strap tensioning elements comprises a first "special technical feature".
2. Claims 10, 14-18 are directed to a mask comprising an inflatable pillow that varies the tension of the straps of the mask. It is considered that an inflatable pillow which varies the tension of the straps comprises a second "special technical feature".
3. Claim 13 is directed to a mask frame that can be resiliently flex around the face of the patient. It is considered that a mask frame that can be resiliently flexed comprises a third "special technical feature".
4. Claims 19-28 are directed to applying a force to the mask onto a patient. It is considered that application of a force to mask onto a patient comprises a fourth "special technical feature".
5. Claims 30-34 are directed to a cushion assembly for a mask comprising a cushion flange, an undercushion, a membrane and a flexible element. It is considered that a cushion assembly comprising a cushion flange, an undercushion, a membrane and a flexible element comprises a fifth "special technical feature".

Groups 1, 2 and 4 of claims are not linked as to form a single general inventive concept, that is, they do not share any special technical features. The common concept linking together these groups of claims is a device to vary the tightness of the mask on the face of the user. However this concept is not novel in the light of US 5,623,923 (BERTHEAU et al) Therefore these claims do not relate to one invention only, *a posteriori*.

Groups 1, 2 and 4 of claims do not share any of the special technical features with group 3 or 5, therefore a technical relationship between the inventions does not exist. Accordingly the claims do not relate to one invention or to a single inventive concept, *a priori*.

It is considered that the inventions of groups 1, 2 and 4 are sufficiently similar that they can be searched with only a moderate amount of extra effort than would be required to search any one of these. Consequently only two additional search fees are invited.

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Information on patent family members

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
US	5623923	CA	2125440	EP	0628325	FR	2706311
		HK	1007418	JP	7136273	US	5503147
US	6470887	AU	36097/99	EP	1077743	FR	2778575
		ID	29278	NO	20005695	WO	9958197
US	5355878	CA	2086241	EP	0541569	WO	9200120
US	5488948	EP	0645164	FR	2710272		
WO	9943375	AU	27262/99	DE	19807961	EP	1056500
WO	9804310	AU	12454/97	AU	14892/00	AU	16355/00
		AU	16811/02	AU	26505/00	AU	34293/97
		AU	42476/99	AU	49012/00	AU	52005/00
		AU	52007/00	CA	2261790	EP	0956069
		EP	1027905	EP	1187647	EP	1187648
		EP	1187649	EP	1187650	JP	2000279520
		NZ	513052	NZ	526165	US	6112746
		US	6357441	US	6374826	US	6412487
		US	6439230	US	6491034	US	6532961
		US	2002005198	US	2002005200	US	2002023649
		US	2002023650	US	2002029781	US	2002074001
		US	2002083948	US	2002096176	US	2002104540
		US	2002108613	US	2002153012	US	2002157672
		US	2002174867	US	2002174868	US	2003034034
		WO	0078381	WO	0078382	WO	0078383
		WO	0078384				
WO	0195965	AU	51876/01	AU	51877/01	AU	67947/01
		CA	2350351	CA	2350356	CA	2370995
		CA	2407118	CA	2413938	EP	1163923
		EP	1163924	EP	1289590	EP	1302212
		EP	1306098	JP	2002028240	JP	2002095751
		NZ	508219	US	2002005201	US	2002014241
		US	2003000533	US	2003062048	US	2003066531
		US	2003089373	US	2003111080	US	2003154978
		US	2003196659	WO	03022341	WO	03030978

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EP	1258266	BR	0201863	CA	2386686	US	2003019495
US	2001020474	DE	10002571	EP	1118346		
							END OF ANNEX